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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,779	01/16/2004	David B. Small	9968-23U1	6327

570 7590 10/30/2007

AKIN GUMP STRAUSS HAUER & FELD L.L.P.
ONE COMMERCE SQUARE
2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103

EXAMINER	
HADIZONOOZ, BANAFSHEH	
ART UNIT	**PAPER NUMBER**
3714	

MAIL DATE	DELIVERY MODE
10/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/758,779	SMALL ET AL.	
	Examiner	Art Unit	
	Banafsheh Hadizonooz	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07/23/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

In response to the amendment filed on 07/23/2007, claims 1-28 are pending in this application. Claim 28 has been added. This office action is made Non-Final.

Allowable Subject Matter

The indicated allowability of claims 20,21and 23-26 is withdrawn in view of the newly discovered reference(s). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greanias et al (US 5,007,085) in view of Inoue et al.(5,831,600) and further in view of Smith III (US 5,466,158).

[Claim 1, 14]: Greanias discloses a system comprising a radio frequency scanning circuit; See Col.2:65-Col.3:7; A control circuit (e.g. Control Processor) in communication with the RF scanning circuit, and a memory in communication with the control circuit. See figure 3. The teaching of Greanias does not specifically disclose that the human finger (as per claim 1 and 14) is required. However, Inoue discloses such feature (e.g. Stylus or human finger) in Figure 1. Also, Greanias does not expressly

disclose the presence of audible output device in communication with the control circuit, or a plurality of audible files stored in the memory. However, Smith III discloses an interactive book device, which consists of a speaker which outputs the audio file retrieved from a read only memory. See Fig.3 element 44, and Figs 5 and 6. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the features of Inoue/Smith III into the limitations of Greanias' invention in order to design a book reading system that interacts with users through audible output as well as input selections by the user.

[Claim 2, 3,15]: Regarding claims 2 and 3, Greanias further discloses a RF scanning circuit comprising a matrix of conductive lines, wherein an RF signal is input into the specific column conductive line (e.g. through the stylus) according to a predetermined input sequence, wherein the RF signals are then received from the specific column conductive line and is outputted according to a predetermined output sequence, and wherein an oscillator generates the RF signals that is input into the specific column conductive line(See Figure 3 and Col.4, 17-38).

[Claims 4, 5]: Regarding claims 4 and 5, The RF scanning circuit of Greanias' invention further comprises an input/output switching device (e.g. wire select multiplexer) which routes the RF signal generated by the RF oscillator to each of the column conductive lines according to the predetermined sequence, and is in communication with the control circuit and the conductive lines. See Figure 3. A detailed

depiction of a multiplexer switch is also shown in Figure 4 of Inoue's invention with S1....Sn Switches.

[Claims 6-9, 17]: Regarding claims 6 and 9 Greanias further discloses a band-pass filter circuit (e.g. Frequency discriminating circuit). See Col.6, 65-68.

Regarding claim 7, the system of Greanias invention discloses the amplified and filtered coupled RF signals that are AC voltage sine wave signals. See Figure 7 (the Oscillator generates AC signals which are transferred to the Amplifier).

With respect to claims 8, and 17, Inoue teaches amplifying and filtering the coupled RF signal. See figure 4, elements 59 and 60. Inoue does not expressly teach using an AC to DC converter to transform a peak signal to DC level. However, the claimed invention includes power supply and a general purpose control circuit as described in Inoue's invention, both of which work with DC signal. Therefore the coordinate input device in Inoue reference inherently has the claimed AC to DC converter.

[Claims 10-13]: With respect to claims 10 and 11, Gearanias doesn't specifically express that the RF signal has a frequency of 100 KHz, or the amplitude of 18 VAC. However, such limitations are well known and are considered obvious design choice.

Regarding claim 12, Greanias discloses that the column and row conductive lines are separated by an insulative sheet. See Figure 2, element 52.

Regarding claim 13, Inoue discloses a controller (e.g. CPU). Inoue does not specifically disclose a microcontroller, but this is an inherent feature of a CPU controller. See Col.1, 36-40.

[Claims 16, 18-19]: Regarding claim 16, Greanias further teaches analyzing (e.g. identifying the ID code)one or more electrical characteristics of the coupled RF signal after an RF signal is input into all of the column conductive lines. See Col.6, 10-14.

Regarding claims 18 and 19 Greanias/Inoue discloses a matrix of conductive lines that are arranged horizontally with a preferred orientation, wherein the control circuit is configured to configure and analyze a single human finger presence among a plurality of possible human finger presences detected by the scanning circuit. See Figure 6, Col.7, 27-38.

Claims 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greanias et al (US 5,007,085) in view of Bisset et al.(US 5,825,352) and further in view of Smith III (US 5,466,158).

[Claims 20, 21, 23-26 and 28]: Greanias discloses a system comprising a radio frequency scanning circuit; See Col.2:65-Col.3:7; A control circuit (e.g. Control Processor) in communication with the RF scanning circuit, and a memory in communication with the control circuit. See figure 3. Greanias further teaches a matrix of conductive lines as a first plurality parallel to and spaced apart from one another and a second plurality oriented transversely to the first plurality of conductive lines, wherein the second plurality of conductive lines are separated from the first conductive lines by a n insulated layer(See Figs. 2, 3). Greanias does not expressly disclose the presence of audible output device in communication with the control circuit, or a plurality of audible files stored in the memory. However, Smith III discloses an interactive book device, which consists of a speaker which outputs the audio file retrieved from a read only

memory. See Fig.3 element 44, and Figs 5 and 6. Furthermore, Greanias does not specifically disclose the presence of human finger and a control circuit to detect and select among the plurality of human fingers. However, Bisset discloses a multiple finger sensing method wherein the touch sensitive pad is capable of detecting the presence of multiple fingers and determine the distance between the fingers (See Col.5, 56-60, Col. 6, 14-38). Bisset further disclose that the orientation of the matrix is such that a side most proximal to the user designated as a southern side and a side opposit from the most distal to the user designated as a northern side (e.g. the vertical conductive lines are in the direction of Y axis) (See Fig. 2, and figure 7B, where the direction of fingers are aligned along the direction of Y axis). Although the teachings of Bisset does not include selecting the most northern finger, but such technology is known in the industry (e.g. multiplexer). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the features of Bisset/Smith III into the limitations of Greanias' invention in order to design a book reading system that interacts with users through audible output as well as input selections by the user.

[Claims 22, 27]: Regarding claims 22 and 27, Smith teaches an interactive book device herein the control circuit is configured to select among the plurality of stored audible messages. See Col.347-53. However the combination of Greanias, Bisset and Smith fail to teach instructing the user to make another selection if the control circuit is unable to select the probable user selection. Nevertheless, the examiner takes official notice that it is well known in the art to include a prompt in the plurality of stored messages to instruct the user if the device is unable to process the user input.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Greanias/Bisset/Smith to include an output prompt to instruct the user to make another selection in order to allow a more effective interaction between the device and the user.

Response to Arguments

Applicant's arguments filed on 07/23/2007 regarding claims 1-19 rejection under 35 U.S.C 103(a) have been fully considered but they are not persuasive.

The applicant argues that the substitution of a finger or the stylus of Inoue for the stylus disclosed in Greanias is unsupported. The applicant clearly states that the interactive book reading system may be used as a learning device for non-reading children. Considering that training the children to hold a stylus is difficult, and using a finger as a pointing mean is more intuitive for children, the substitution of the stylus in the Greanias invention with finger disclosed in Inoue's invention clearly makes the invention user friendlier.

Applicant's arguments with respect to claims 20-27 rejections under 35 U.S.C 103(a) have been considered but are moot in view ground(s) of rejection.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Lynch et al (6,668,156)

- Electronic learning device

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Banafsheh Hadizonooz whose telephone number is 571-272-1242. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272- 6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BH

10/25/2007

ROBERT E. PEZZUTO
SUPERVISORY PRIMARY EXAMINER